

THE DEVELOPMENT AND GEOGRAPHICAL DISTRIBUTION
OF INDUSTRY IN COMMUNIST CHINA*

1. The industrial capacity of mainland China has expanded rapidly from the small base inherited by the Communists two decades ago and among Asian countries is now second only to Japan. Nonetheless, Chinese industry remains underdeveloped in relation to the mainland's vast natural resources, its huge population, and the ambitions of the Communist leadership. Factories and mines probably produce about one-fifth of China's gross national product, employ well under a tenth of the labor force, and are concentrated in the populated eastern two-thirds of the country.

International Comparisons

2. China ranks as a leading world producer of important raw materials: probably first in tungsten; second in salt, silk, and tobacco; third in antimony, magnesite, and tea; fourth in mercury and cotton textiles; fifth in tin and molybdenum; and sixth in manganese. China also has become a major producer of hard coal, electric power, crude steel, and several basic industrial chemicals.

3. In contrast to pre-Communist appraisals, mainland reserves of most industrial raw materials (including many ferrous and nonferrous metals as well as fuels and hydroelectric potential) now appear large enough to support a diversified manufacturing complex on the scale of those in the United States and the Soviet Union. China's principal bottlenecks in industry -- apart from

* Text to accompany China Map Folio No. 16 (Industry).

insufficient reserves of a few important alloying materials such as chrome, nickel, and cobalt -- are the small number of modern plants, the shortage of skilled managers, engineers, and scientists, and the generally low level of technology. The Chinese must rely heavily on foreign technology in the design and production of complex processing, refining, and finishing equipment.

Pre-Communist Development

4. Industrial development in the pre-Communist era had been characterized by (a) concentration in Manchuria and a few treaty ports; (b) foreign ownership and management; and (c) only gradual expansion of capacity and output. Shanghai, opened to trade in the 1850's, grew up as the center of light industry. Liaoning Province in southern Manchuria, seized and developed by the Japanese after 1931, became a base for heavy industry. When the Communists took over in 1949 -- after decades of civil and international war -- industrial production was only about half the peak pre-war level of 1936.

Industry under the Communists

5. As a result of the re-establishment of economic "law and order", most industries had recovered or surpassed earlier peak levels of output by the end of 1952. Then followed a rapid rise in capacity and output during the Soviet-style First Five Year Plan (1953-57); a frenzied increase in tempo during the Great Leap Forward (1958-60); an abrupt decline following the cutoff of Soviet aid and the collapse of the Leap Forward (1961-62); and gradual recovery since

1963 (see Table 1). Following Soviet investment priorities, heavy industries have been expanded at a much faster pace than light industries. China's most notable gains in recent years have been in the production of petroleum, chemical fertilizer, and electronic and other equipment essential to advanced weapons development.

Regional Patterns:

6. In 1952, the percentage distribution of industrial production between the coastal and inland areas was approximately as follows:

	<u>Coastal Region</u>	<u>Inland Region</u>
Total industrial production	70	30
Electric power	65	35
Crude steel	85	15
Machine tools	90	10
Cotton cloth	80	20

The coastal region of China is defined as comprising the 7 Provinces of Liaoning, Hopeh, Shantung, Kiangsu, Chekiang, Fukien, and Kwangtung and the 2 special cities of Peking and Shanghai. The remaining 19 provinces and autonomous regions constitute the inland region.

The Communist program of industrialization called for the enlarging and modernization of facilities in or near the coastal cities of the East and Northeast, but two-thirds of the 700 major new industrial projects under the

Table 1

Communist China: Estimated Production of Principal Industrial Products in Selected Years a/

	Unit	Highest Pre-Communist Output (1936-43)	1949	1952	1957	Highest Leap Forward Output (1958-60)	Lowest Output (1961-62)	1965
Electric power	Billion KWH	6	4	7	19	47	30	40
Coal	Million MT	62	32	66	130	325	180	210
Crude oil	Million MT	0.3	0.1	0.4	1.5	4	4	8
Crude steel	Million MT	0.9	0.2	1.3	5.3	15	8	11
Machine Tools	Thousand units	5	2	14	28	n.a.	n.a.	n.a.
Chemical fertilizer	Million MT	0.2	0.03	0.2	0.8	2.5	1.4	4.6
Cement	Million MT	2.3	0.7	2.9	6.9	13	6	9
Timber	Million Cu.Meters	n.a.	6	11	28	41	27	36
Paper	Million MT	0.2	0.2	0.5	1.2	2.1	1	1.5
Cotton cloth	Billion Lin.Meters	2.8	1.9	3.8	5.0	7.5	3	3.9
Sugar	Million MT	0.4	0.2	0.5	0.9	1.1	0.5	1.5

a. Official statistics for the period 1936-57; estimates for later years are from Field, see section 8.

First Five-Year Plan were to be located in such new inland industrial centers as Pao-t'ou, Ta-t'ung, T'ai-yuan, Wu-han, Sian, Lan-chou, and Ch'eng-tu. Efforts to create several Manchurian-type industrial bases in scattered inland locations are continuing but at a slower pace than previously, owing to the withdrawal of Soviet aid and the interruption of rapid industrial growth in 1960.

7. For purposes of administration and planning, the Chinese Communists have grouped the 21 provinces, 5 autonomous regions, and 2 special cities into 6 "economic combination regions". The probable relative rank of each region in terms of resources and industrial development is indicated in the following table;

**Communist China: Estimated Relative Rank of Economic Coordination
Regions by Selected Economic Indicators a/**

	I	II	III	IV	V	VI
	Northeast	East	North	Central-South	Southwest	Northwest
Land area	5	6	3	4	2	1
Population	5	1	4	2	3	6
Total industrial production	1	2	3	4	5	6
Electric power	1	2	3	4	5	6
Coal	2	4	1	5	3	6
Petroleum	1	4	--	5	3	2
Iron and steel	1	3	2	3	3	--
Machine building	1	2	4	3	5	6
Chemicals	3	1	2	4	5	6
Textiles	5	1	3	2	5	4
Sugar	2	5	4	1	3	6
Paper	1	2	3	2	3	--

a. Northeast China includes the provinces of Heilungkiang, Kirin, and Liaoning; East China includes the provinces of Shantung, Kiangsu, Anhwei, Chekiang, Kiangsi, and Fukien, and Shanghai Municipality; North China includes Hopeh and Shansi provinces, Inner Mongolia Autonomous Region, and Peking Municipality; Central-South China includes the provinces of Honan, Hupeh, Hunan, and Kwangtung and Kiangsi Chuang Autonomous Region; Southwest China includes the provinces of Szechwan, Kweichow, and Yunnan, and Tibet Autonomous Region; and Northwest China includes the provinces of Tsinghai, Kansu, and Shensi and the autonomous regions of Sinkiang Ulghur and Ningsia Hui.

Principal Sources

8. Because the Chinese Communists have come to regard most economic data as state secrets, published research on mainland industry is much more abundant for the pre-Communist era than for the period since 1949. In the first decade of the Communist era, a rudimentary statistical system was built up, but almost no industrial statistics have been published since 1960. No comprehensive analysis of industry in both its developmental and locational aspects has been published for either period. The following represent important sources of information on industry in China:

Yu-kwei Cheng: Foreign Trade and Industrial Development of China: An Historical and Integrated Analysis Through 1948, Washington: The University Press of Washington, D.C., 1956.

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